

CLAIMS

1. A system of coupling flanges provided with a rigid flange (7) with a full cylindrical flange (7A) to coaxially accommodate a set of internal (9) and external (8) conical rings cooperating through their relative end-wise movement to link by friction said flange with a hollow shaft (2), and to define an annular space (10) between the inside surface of said passage (7A) and the outer surface of said external ring (8), this annular space (10) making it possible to engage end (2A) of said shaft (2), with outer ring (8) being more elastically deformable radially so as to grasp by clamping said end (2A) of said shaft (2) in said annular space (10) during the end-wise movement of said internal (9) and external (8) conical rings characterized in that inside said internal conical ring (8) there are semi-through side slots (8D) spread out regularly with respect to one another.

2. A device according to the claim 1, characterized in that the semi-through side slots (8D) terminate alternatively in one (8E) or the other (8F) of the transversal faces of said external ring (8).

3. A device according to any one of the previous claims,

characterized in that it also includes a rotating link (14) between said housing (7) and said internal ring (9).

4. A device according to any one of the preceding claims characterized in that said rotating link (14) is made of cooperating teeth (9G,7F) arranged respectively on the outer perimeter of said internal ring (9) and on the inside perimeter of the inner passage of said housing (7).

5. A device according to any of the previous claims, characterized in that said rotating link (14)

comprises a plate (16) secured solidly to the transversal faces of said internal ring (9) and said housing (7), opposite said shaft.

5       6. A device according to claim 1 characterized in that said annular space (10) is blind and extends more or less over the entire length of said external ring (8).

10      7. A device according to claim 1, characterized in that said conical external ring (8) has an annular external shoulder (8G) forming the bottom of said annular space (10) and against which is applied to abut the transversal face of the tubular end (2A) of said shaft

15      8. A device according to claim 1 characterized in that said axial passage (10) of housing (7) terminates by an internal annular shoulder (7D) against which the said external annular ring bears.

20      9. A device according to claim 1 characterized in that said inside (8C) and outside (9A) conical combined surfaces, respectively of external ring (8) and internal ring (9) are cone-shaped with an apex on the opposite end to said shaft.

25      10. A device according to claim 1, characterized in that said inside ring (9) extends on the end opposite said shaft in a threaded cylindrical part (9C) opening from said axial passage (10) of the housing and includes a clamping device (11) screwed onto the threading of said inner ring (9) and is applied against said housing (7) to pull said internal ring and cause the spreading apart of said outer ring.

30      11. A device according to claim 1 characterized in that the inner surface (9E) of said inner ring, flared linearly up to the transversal face (9F) turned towards said inner ring, decreases gradually.